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October 4, 2005

Honorable Councilmember Richard Conlin
Seattle City Hall
PO Box 34025
Seattle, WA 98124-4025

Re: Seattle Planning Commission Review of Monorail Ridership (re: Feeder Buses)

Dear Councilmember Conlin,

In response to your request of July 8, 2005, the Seattle Planning Commission (SPC) has reviewed the contract between the Seattle Monorail Project (SMP) and Cascadia. Since submitting our letter dated September 12th titled *Seattle Planning Commission Review of Monorail Contract* we continued our review of ridership projections, specifically with regard to feeder bus service. While SPC is aware that the City Council and Mayor have officially cancelled the Transit Way Agreement with SMP and the City Council has resolved to not allow City Departments to issue project construction permits for the Green Line, we want to be thorough by completing our review of the contract and provide you with additional information and observations regarding feeder bus service.

The General Conclusion of the Seattle Planning Commission Review on Ridership and Feeder Bus Service:

The Green Line as currently planned is heavily dependent on drawing riders from existing transit users, most of whom are expected to access the monorail via feeder bus service. The capacity constraints and poor quality of service of the Green Line, identified in our previous report to you, will deter some - perhaps many - of these existing bus riders from continuing to use transit because they will be required to stand for the completion of their journey on the monorail.

Summary of Seattle Planning Commission Conclusions Regarding Green Line Ridership & Quality of Service:

1. The short train/platform lengths and the single-beam guideway sections in the north and south segments result in relatively limited capacity. This limited capacity results in capacity constraints, including passenger overloads in the link between Elliott/Mercer and Seattle Center under the least conservative assumptions. This overload condition was confirmed by SMP's technical peer group review. Capacity constraints are an impediment to ridership.
2. The limited capacity also results in unacceptable levels of standing passengers in most of the Green Line. Calculations show that during the AM peak hour more than 40% of all passenger-hours are standing.

3. The assumptions used in SMP's ridership forecast are not conservative. Using more conservative assumptions regarding peak hour loading and willingness of standing passengers to tolerate crowding, additional capacity constraints and higher percentages of standing passengers occur in all regions of the line during the peak periods.
4. The projected ridership is heavily dependent on reprogramming of bus service in Ballard, Magnolia/Interbay, and West Seattle, so that current service hours in those areas are changed to feeder bus service with the Green Line serving as a trunk line. Given the limited capacity, however, all passengers transferring from feeder buses in Ballard and Magnolia/Interbay, and most passengers transferring from feeder buses in West Seattle, in the AM peak hour, will not be able to find a seat upon boarding. This is a poor quality of service that will be an impediment to ridership.
5. As long as the single-beam guideway and short trains/platforms remain in the Green Line, they will result in capacity constraints and poor quality of service, both impediments to ridership. Additionally, expansion of the Green Line will not be possible.
6. Planning of the Green Line appears to lack quality of service standards, especially criteria for passenger loading on the trains that will encourage ridership on the system. Such standards could include; a) a provision that during off-peak periods all passengers should be provided with a seat; b) a provision that during peak periods standing passengers should be tolerated only in the Downtown segment and only during the peak 15 minutes of the peak hour; and c) a provision that passengers transferring from feeder buses must be guaranteed a seat at all times.

Seattle Planning Commission Background on Review on Ridership and Feeder Bus Service:

The Green Line ridership forecasts depend heavily on reprogramming of bus service so that current service hours in Ballard, Magnolia/Interbay, and West Seattle would be shifted to feeder bus service with the Green Line acting as a trunk line. The most current ridership forecast shows 59% access to the monorail by transit. Most trips are projected to be between Ballard/Magnolia/Interbay and Downtown, and between West Seattle and Downtown.

SPC commented extensively on this issue in its EIS review [*Seattle Planning Commission Comment Letter SMP DEIS*, October 3, 2003], pointing out that the necessary reprogramming is not guaranteed, that this represents a significant risk to the project, and that the consequences of failure to achieve the reprogramming should be analyzed. SPC recommended, in its letter dated April 23, 2004 regarding the Transit Way Agreement, that the City take steps to ensure that the reprogramming occurs.

In the latest ridership forecasts (by Cambridge Systematics) for the year 2030, which we used for the ridership analysis we sent to you two weeks ago, specific reprogramming of bus routes is assumed, and maps of the assumed feeder routes are provided in the report. In Ballard, all routes feed the monorail station at NW Market. In Magnolia/Interbay, the feeder buses are expected to serve Dravus and Blaine. In West Seattle, the feeder buses are proposed to be spread out among the four stations serving that area of the City. This reprogramming is said, in the Cambridge report, to be "very close to the details of the KCM [King County Metro] concept."

The seat capacity of the Green Line in the north and south regions, where the feeder bus connections are assumed, is 700 seats per hour per direction (70 seats per train, 10 trains per hour). Therefore, any passenger link load exceeding 700 riders in-bound during the AM peak period means people boarding at the next stations would have to stand.

Simple review of Table 5.7 in the Cambridge report shows that, on average during the AM peak hour for the base year 2030, ALL passengers delivered by feeder bus to the NW Market monorail station would be unable to find a seat upon boarding southbound trains because trains would already be at full seating capacity. In Magnolia/Interbay, again all passengers delivered by feeder bus would have to stand. In West Seattle, passengers delivered to Morgan Junction and Alaska Junction will find seats, but most of those delivered to Avalon, and all of those delivered to Delridge, would not find a seat.

This is a poor quality of service that would likely deter ridership on the Green Line. The most recent ridership forecast by Cambridge indicates that 81% of the planned ridership will come from existing transit users. If these transit riders are required to transfer to the Green Line, instead of continuing on their bus downtown, and are then required to stand while on the monorail, it is likely that substantial numbers of current transit riders may choose not to continue to use transit.

The Commission believes that decisions by King County Metro concerning reprogramming of bus service should take into consideration the quality of service proposed for the Green Line.

We have not seen the report of the technical peer group recently provided to SMP, but from the descriptions in the newspapers it appears that they have observed some of the same ridership issues that we have identified. We will be happy to review that report when it becomes available.

In summary, the quality of service for ridership would require close scrutiny if the contract is to go forward. If you have questions regarding this letter, please contact Barbara Wilson, SPC Executive Director, at (206)684-0431. We appreciate the opportunity to be of service and will be glad to assist in any further analysis.

Sincerely,



Jerry Finrow
Vice Chair

cc: Mayor Greg Nickels
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